

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019824**Date Inspected:** 24-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Listed below.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** S.A.S. components**Summary of Items Observed:**

The Quality Assurance Inspector (QAI), Scott Croff, was present at the Self Anchored Span (SAS) job site to observe the scheduled fabrication and welding of components for the SFOBB project. The following observations were made:

- 1) OBG field splice welding at 9E/10E
- 2) OBG field splice inspection at 8E/9E
- 3) Document review at Pier 7

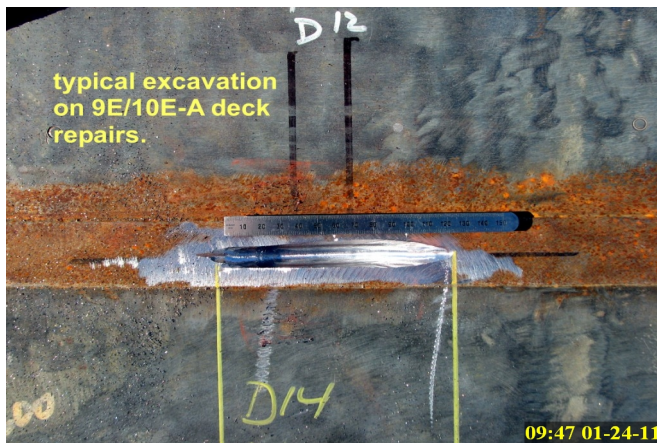
- 1) The QAI observed ABF personnel welding at OBG lifts 9E/10E field splice. The QAI noted that the Quality Control (QC) Inspector Fred Von Hoff is monitoring this welding. At weld B, the QAI observed ABF worker Xiao Jian Wan, ID 9677, making the vertical (3G) complete joint penetration (CJP) weld using shielded metal arc welding (SMAW) with E7018-H4R electrodes. The QAI was informed that welding procedure specification ABF-WPS-D15-1040A is being used at this location. At weld A3, the QAI observed ABF worker Wai Kitlai, ID 2853, making flat (1G) CJP weld repairs using SMAW with E7018-H4R electrodes. The QAI was informed that welding procedure specification ABF-WPS-D15-1001-Repair is being used for this welding. The QAI randomly measured the preheat, interpass temperature and welding parameters and noted that they appeared to be conforming to the WPS requirements. As the repair welding progressed, the QAI witnessed the QC Inspector conducting Magnetic Particle Testing (MT) on the repair excavations. The QAI made observations of the excavations and noted that the metal appeared to be sound and ready for welding. See the attached photo.
- 2) The QAI observed QC Inspector John Pagliero conducting Ultrasonic Testing (UT) on repairs that have been made to OBG field splice weld 8E/9E-F. The QAI was informed by the QC Inspector that so far, none of the 4

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repair areas have rejectable indications. The QAI was informed that when the testing is completed, QA will be notified if the weld is acceptable. See the attached photo.

3) The QAI reviewed contract related documents including the submitted and approved Welding Quality Control Plan (WQCP) and approved revisions to the WQCP. The QAI was given informal copies of weekly welding report packages #43 and #44 to conduct a courtesy review for conformance to the contract requirements. The QAI also noted that F.W. Spencer has an approved WQCP addenda. The QAI reviewed the WQCP to update welder qualification lists being used by QAI on the job site. During the review of the WQCP, the QAI was made aware of a request for information (RFI) #1871, regarding mechanical piping supports. The RFI has requirements for SPCM welding of attachments to the OBG structure. The QAI noted that the SPCM requirements were not made aware to the QAI during the actual welding that is referred to in the RFI. The QAI also noted that the contractors (ABF and F.W. Spencer) have not submitted any reports for this welding, which was performed in the month of November. The QAI relayed this information to the QAI Lead Bill Levell to address during the next QC / QA meeting. The QAI relayed new WPS and Welder Qualification information to the other QAI. The QAI continued consolidating the information from previous welding report submittals to identify missing reports of inspections. The QAI continued generating a weld specific tracking list from the contractor's welding reports.



Summary of Conversations:

The QAI had general conversations with ABF and Caltrans personnel during this shift. As noted, the QAI had conversations with QC Inspectors regarding the welding and repairs in progress. The QAI relayed the observations of welding, the status of submittal reviews and the apparent discrepancies with the work performed to RFI # 1871 to the QAI Lead Bill Levell. Except as described above, there were no other notable conversations or observations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Sang Le (916)764-5650, who represents the Office of Structural Materials for your project.

Inspected By: Croff, Scott

Quality Assurance Inspector

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Reviewed By: Levell,Bill

QA Reviewer